

# Stern's Pools

## INSTALLATION MANUAL

### FOR THE BAHAMA RANGE OF POOLS

This assembly guide contains instructions for site preparation, excavation and installation of the Stern's Bahama Oval, Round, Keyhole and Deep End Steel and Resin Pools.

Please be sure to identify the size and model of your pool and follow the instructions that apply to that particular pool.

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## **INTRODUCTION**

**Please take the time to read and understand the instructions contained in this manual.**

**Mark on it the size and model of pool you have purchased along with the date it was purchased, keep the manual in a safe place when installation is complete as it could be of assistance in identifying any replacement parts you may require in the future.**

Stern's Pools are engineered for strength and durability. A little extra care in the ground preparation, construction and maintenance of your pool will ensure a longer trouble free life of the product.

This manual is in two sections. **Part 'A' SITE PREPARATION** which sets out in general terms the requirements of the site, a basic method of preparing the site and suggests a list of tools and equipment you will need to carry out this preparation work.

**PART 'B' CONSTRUCTION** sets out step by step instructions for the assembly and erection of your pool. It must be understood that this manual covers a range of pools and you will need to identify the particular model, size and shape of pool you have purchased and follow the instructions that apply to that particular pool.

Before commencing assembly, check and identify all components against the parts listed in this manual. Contact your Sterns Retailer and notify them should any parts be missing or appear to be faulty.

The Top Copings and Posts of Resin Pools are manufactured from an extruded Polymer Resin material which is corrosion resistant enabling the use of salt water and a salt water chlorination system for sanitising of the pool water.

Resin components, whilst retaining a similar profile shape to the metal ones, differ slightly due to their manufacturing processes and their material thickness.

The Posts of the Resin Pools are a hollow box section shape, apart from the two that fit over the Flanged Structural Posts on Keyhole Pools. These Posts have one open face that fits around the post flange.

Copings have a hollow cross section with internal webs strategically placed to provide strength.

The assembly process is the same for both metal and resin pools, differing only by the type of self tapping screws used to fasten the Top Coping and the special grease provided with the resin pools that is to be applied to all screws before fastening to prevent corrosion of metal components.

All Stern's Family Pools are engineered to be installed either partially or completely in ground provided the correct procedure for construction and backfilling is followed for each particular type of installation. Refer to your Stern's Retailer for any special requirements by statutory authorities in your area.

In most cases at least some section of the pool will be partially in ground due to the fact that sites are rarely dead level. Any metal part of the pool that is to be covered with soil or backfill must have a generous coat of fish oil or bituminous paint applied to prevent corrosion. Failure to protect buried components in this way will void your warranty.

**Deep End Pools.** Most sizes of Stern's Pools are available with a deep end option. If your pool is one of these be sure to refer to the special section of this manual on deep end excavation and liner installation.

**Keyhole Pools.** These Pools, as the name suggests are in the shape of a Keyhole. Normally the larger diameter end of the Pool has a deep end which is achieved by excavating the ground to the shape specified in the section under "Additional Information for Keyhole Pools." Keyhole Pools are also available without a deep end.

# PART A SITE PREPARATION

## Before You Start

This installation guide is designed to enable the handyman to erect and maintain a Stern's Family Pool. For quick and economical installations Stern's also recommend the services of experienced Stern's installers who have expertise in difficult site conditions and planning. Enquire at your friendly Stern's pool distributor for more information.

It is wise to check your local council and water authority that the position you have chosen for your pool does not interfere with any building regulations. Some councils may require filtration, drainage and construction details to be submitted for approval before installation. Most councils also require the pool to be surrounded by a child-proof fence with a self-latching gate.

Do not erect your pool on a windy day or leave it unfilled as wind could buckle the side wall and damage the liner. The assistance of a few friends will prove invaluable when installing your pool.

Please check the parts supplied with the parts list for your particular type of pool and report any damaged or missing parts to your local Stern's distributor immediately. There are some additional items you will need to buy. These are listed with the parts list in part B.

Carefully read Parts A and B of the installation guide before commencing work on the pool. Failure to follow the site preparation and assembly steps, or use of unauthorised parts may render the warranty invalid.

Please note that all the sizes given are approximate only.

## Tools You Will Need

- Boards for unrolling the wall.
- Wheel barrow.
- Shovel or Spade.
- Garden Rake with a flat back.
- Tamper or light Roller.
- Steel Tape Measure.
- Spirit level.
- Straight timber Plank.  
(approximately 2500mm long.)
- Screwdriver-Philips Head.
- Screwdriver-Slotted Head.
- Adjustable Spanner.
- Hammer.
- Scissors.
- Ball of String & Stakes.

Some additional tools may be required to install the Filter Equipment and Plumbing.

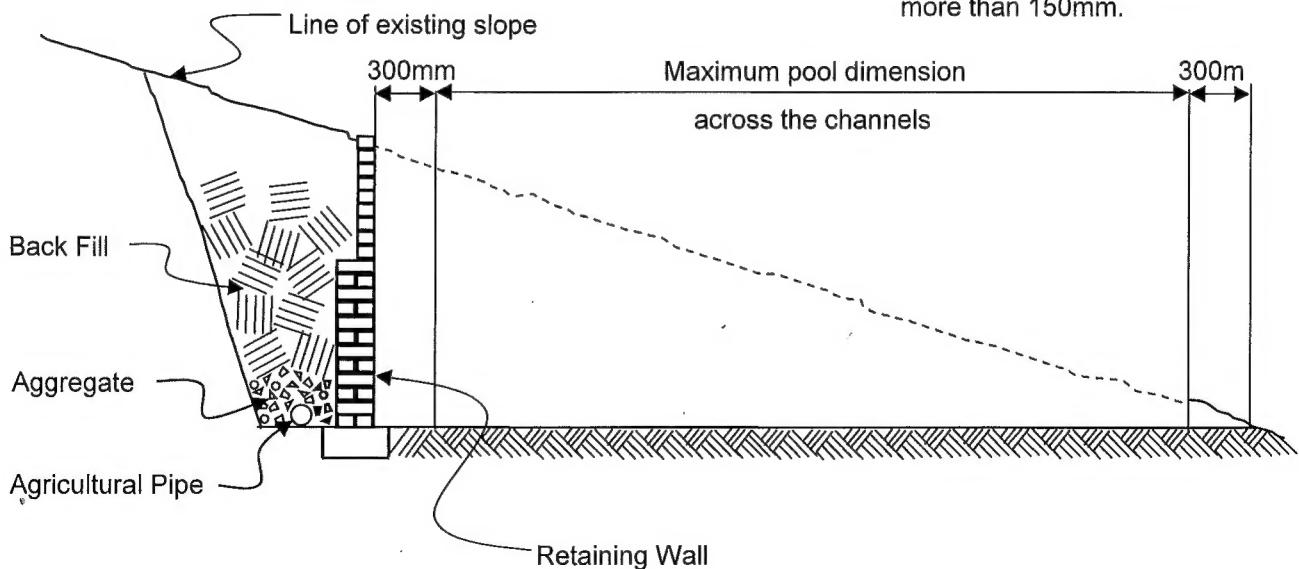
## Choice of Location

When choosing a location for your Pool make sure that the Filter can be installed in the position as recommended in the ground plan and that adequate drainage, sound-proofing and protection from water logging is provided. It is advisable to position the Filter away from the Pool Wall to stop small children or pets from using it to climb into the Pool.

## Sloping Sites

Where possible choose a flat level area for your Stern's Pool. If your site is sloping, the slope must be dug out rather than built up as the weight of the filled Pool could cause any built up area to subside. Should extensive excavation of a sloped area or substantial back-filling be required, a brick retaining wall may be necessary.

It is not advisable to back-fill against the pool wall but where this is unavoidable it is essential that all buried metal parts are coated with Fish Oil or Bituminous Paint to prevent corrosion. River sand should be used adjacent to the pool wall to evenly distribute pressure. Agricultural pipes and aggregate should be laid underneath for drainage in any area that is filled with sand to a depth of more than 150mm.



## In Ground Installation

In-ground installation is only to be carried out by a qualified pool installer. In general, the excavation for Oval Pools needs to be 700mm wider than the pool on each side and 300mm longer than the pool on each end. For Round Pools the excavation needs to be 300mm larger than the pool wall all around. After excavation follow the installation instructions in PART B.  
**Only when the pool is completely installed and filled with water should the back filling be commenced.**

Agricultural pipe with aggregate must be laid and sloped to a free outlet. Where the pool is installed wholly in the ground with no reasonable possibility of gravity drainage, the agricultural pipe should be brought to an up stand pipe with a surface grating for inspection of ground water level. Back fill material is a dry sand and cement mixture, detailed instructions for in-ground installations are available from your local Stern's Pools Distributer.

## Site Preparation

First clear the area of any grass, weeds, stones, concrete, tarred paper, sharp objects or anything that is likely to damage the Pool or Liner. Poison any grass that may penetrate the vinyl Pool Liner and remove any dead plants. Nutgrass is the most dangerous of all weeds that will damage the Liner.

Referring to the pool ground layout plan in Part B for your size pool, roughly clear the area with approximately 150mm clearance all around the perimeter using a shovel and the flat back of a rake.

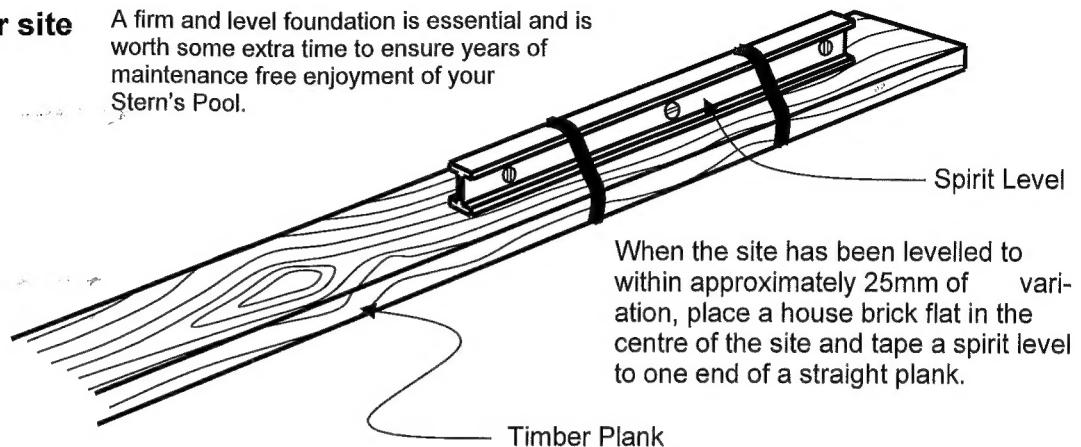
## How to level your site

A firm and level foundation is essential and is worth some extra time to ensure years of maintenance free enjoyment of your Stern's Pool.

When the site has been levelled to within approximately 25mm of variation, place a house brick flat in the centre of the site and tape a spirit level to one end of a straight plank.

## How to level your site

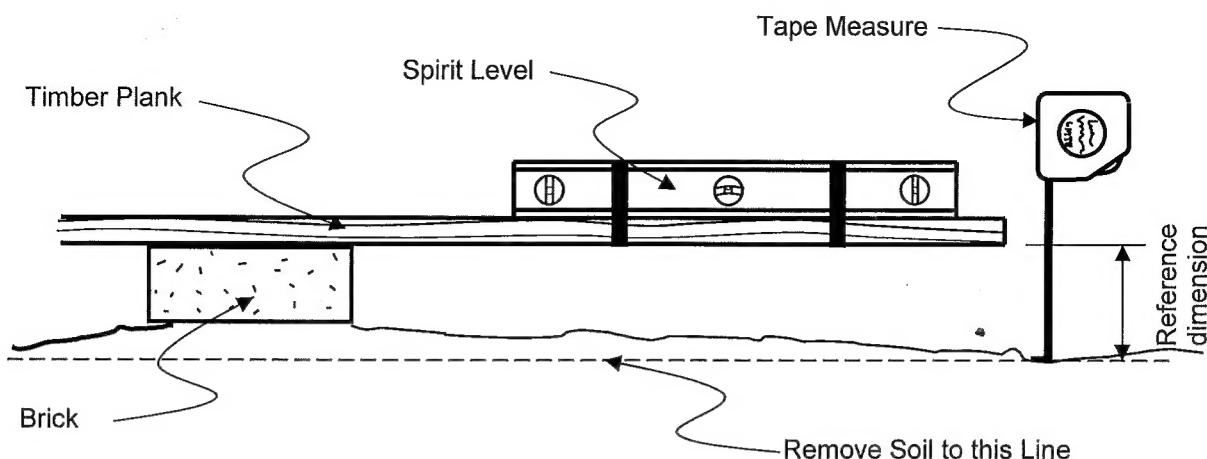
A firm and level foundation is essential and is worth some extra time to ensure years of maintenance free enjoyment of your Stern's Pool.



Find the lowest spot in the area and place the spirit level end of the plank over it with the other end of the plank resting on the brick. Raise the spirit level end of the plank above the low point so the plank is level and measure the distance from the ground level to the under-side of the plank with a steel tape measure. Using this distance as a reference, move the plank around your pool site (keeping one end on the brick) to determine the amount of soil is to be removed.

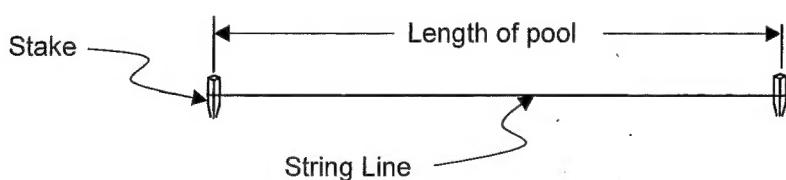
When the site has been levelled to within approximately 25mm of variation, place a house brick flat in the centre of the site and tape a spirit level to one end of a straight plank.

When the levelling procedure is complete and the waste material removed, proceed to work on the pool ground plan.



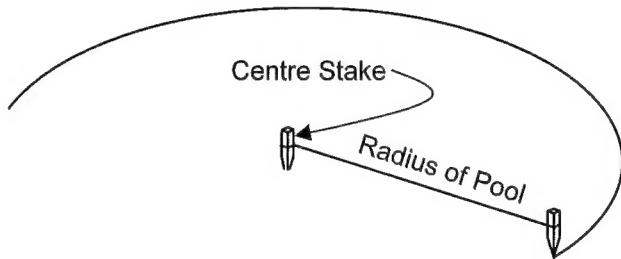
## How to mark out your Pool Ground Plan.

An easy way to mark out circles and straight lines on your site is by using 2 stakes with a length of string pulled tight in between. Make sure that the length to be marked out is equal to the distance between the points on the stakes.



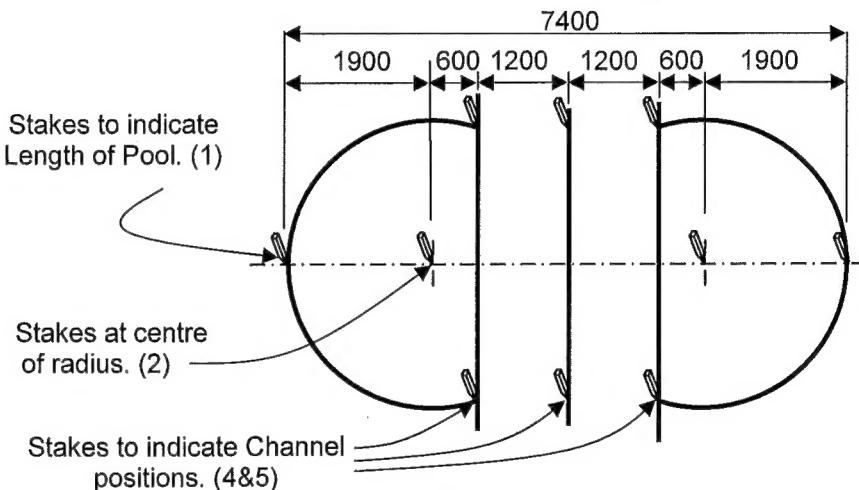
## Round Pools

To mark out a circle on the ground, mark the centre of the pool by measuring back a distance equal to the radius of your size pool then driving one of the stakes into the ground at that point. Adjust the string so it is again taught then remove the other stake from the ground and use it to scribe a circle in the ground. The radius being set by the length of the string from the stake in the centre.



## Oval Pools

- 1) Mark the centre of the radius at each end of your pool with marker stakes and join with string. Scribe a line on the ground beneath the string to mark the centreline of your pool then remove the string.
- 2) Measure back along the centreline from the stake at each end of your pool a distance equal to the radius of the end of your size pool, drive a stake in at this point and use the other stake and string to mark the radius at each end using the method described above for round pools.
- 3) For 14x10 (4.1mx3.1m) and 16x12 (5.0mx3.8m) pools, position marker stakes at the points where the two arcs intersect.
- 4) For all other 10' (3.1m) wide pools, measure in 500mm from the centre of the arcs and all other oval pools 600mm from the centre of the arcs toward the centre of the pool and scribe lines at right angles to the pools centreline. For Keyhole pools measure in 600mm on the small end and 1580mm on the large end arc centre points then scribe lines at right angles to the centreline as above. Position marker stakes at the points where these lines intersect the arcs.
- 5) The position of the pool channels are indicated by these marker stakes. For pools longer than 5 metres additional channels are located at 1200mm between the two extreme channel positions. Mark the positions of the additional channels with stakes. All measurements are to the centreline of the channels.

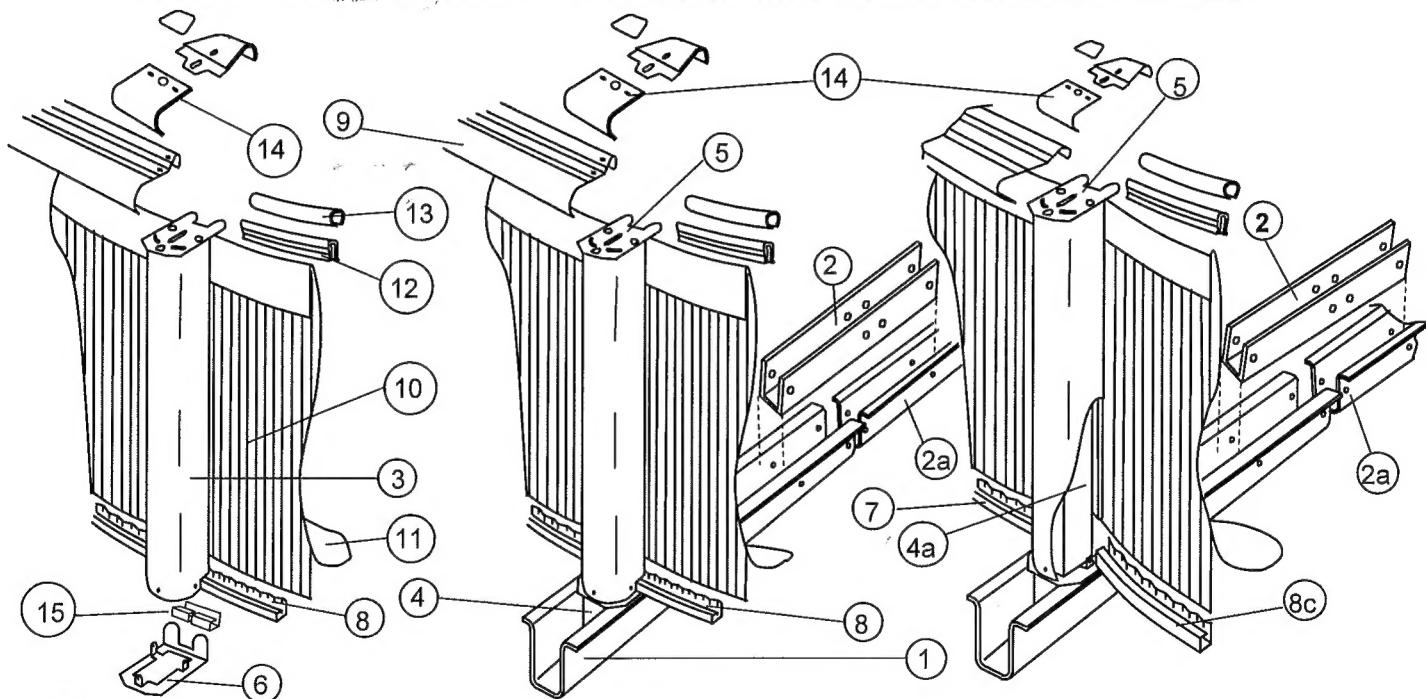


**Typical layout for 24x12 (7.4mx3.8m) Pool.**

**Proceed to Part B.**

# PART B CONSTRUCTION

## ASSEMBLY GUIDE FOR BAHAMA BRACELESS POOLS



CURVED END SECTION

STRAIGHT SIDE SECTION

KEYHOLE CORNER POST

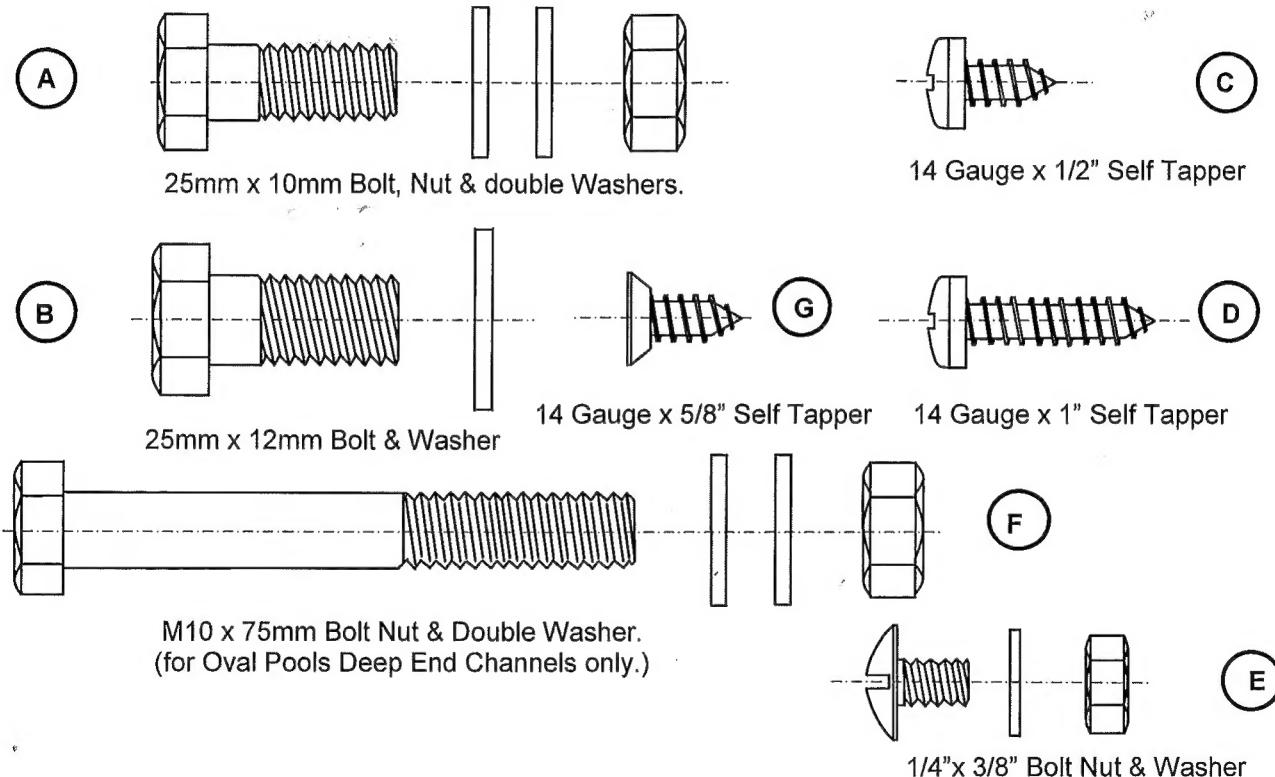
### NUMBER OF PARTS YOU SHOULD HAVE FOR KEYHOLE POOLS

### POOL SIZE

ITEM	DESCRIPTION	PART NUMBER	2516	2916	3316	
1	Channel (2 pieces per set)	991909	2 sets	3 sets	4 sets	
2	Channel Joiner	991923	4	6	8	
2a	Channel Spacer	991910	2	3	4	
<b>STEEL POOL</b>						
3	Non Structural Post	4ft-991317	4ft 6in-991319	17	19	21
<b>RESIN POOL</b>						
3a	Non Structural Post (closed)	4ft-991300C	4ft 6in-991301C	15	17	19
3b	Non Structural Post (open)	4ft-991307C	4ft 6in-991308C	2	2	2
4	Structural Post	4ft991318	4ft 6in-991320	2	4	6
4a	Flanged Structural Post	4ft-91274	4ft 6in-991275	2	2	2
5		<b>STEEL POOL</b>	<b>RESIN POOL</b>			
5	Top Post Plate	991340SW	991340SW	17	19	21
6	Bottom Post Plate	991341SW	991341SW	17	19	21
7	Slightly Curved Bottom Rail	991266SW	991266SW	2	4	6
8a	12ft Curved Bottom Rail	991264SW	991264SW	6	6	6
8b	15ft Bottom Rail	991265SW	991265SW	9	9	9
9	Standard Coping	991350SH	991306C	15	17	19
9a	Left Hand Coping	991344SH	991309C	1	1	1
9b	Right Hand Coping	991345SH	991310C	1	1	1
10	Metal Pool Wall			1	1	1
11	Pool Liner			1	1	1
12	PVC Edge Strips	991370		17	19	21
13	PVC Top Rail	991298		17	19	21
14	Coping connector	991363		17	19	21
15	Bottom Rail Connector	991281SW	991281SW	13	13	13

Please check all the parts and fasteners listed, notify you nearest Stern's Retailer if any are missing or damaged.

## LIST OF FASTENERS SUPPLIED



## NUMBER OF FASTENERS YOU SHOULD HAVE FOR KEYHOLE POOLS

Reference	Description	Pool Size		
		2516	2916	3316
<b>A</b>	25mmx10mm Bolt, Nut & Washer	48 Bolt & Nut 96 Washer	72 Bolt & Nut 144 Washer	96 Bolt& Nut 192 Washer
<b>B</b>	25mmx12mm Bolt & Washer	8	12	16
<b>C</b>	14 Gauge x 1/2" Self Tapping Screw (Steel Pool) (Resin Pool)	102 170	114 190	126 210
<b>D</b>	14 G x 1" Self Tapping Screw	17	19	21
<b>E</b>	1/4"x 3/8" Bolt Nut & Washer	66 for 4ft deep pools, 72 for 4ft 6in deep		
<b>G</b>	14 G x 5/8" Countersunk Self Tapping Screw (Steel Pool Only)	68	76	84

**NOTE! Resin Pools are supplied with a small tub of a specially formulated marine grease. This must be applied to the thread of all screws upon assembly to minimise the risk of corrosion of mating metal components.**

## LIST OF OTHER THINGS YOU WILL NEED

Item	2516	2916	3316
Builders fatty sand	2.0m	2.25m	2.5m
Black polythene sheet	7.8x5.0m	9.0x5.0m	10.5x5.0m
Concrete blocks 400x200x100mm	4	6	8
Brick	1	1	1
PVC tape	1.5m	1.5m	1.5m
Weed killer	as required	as required	as required

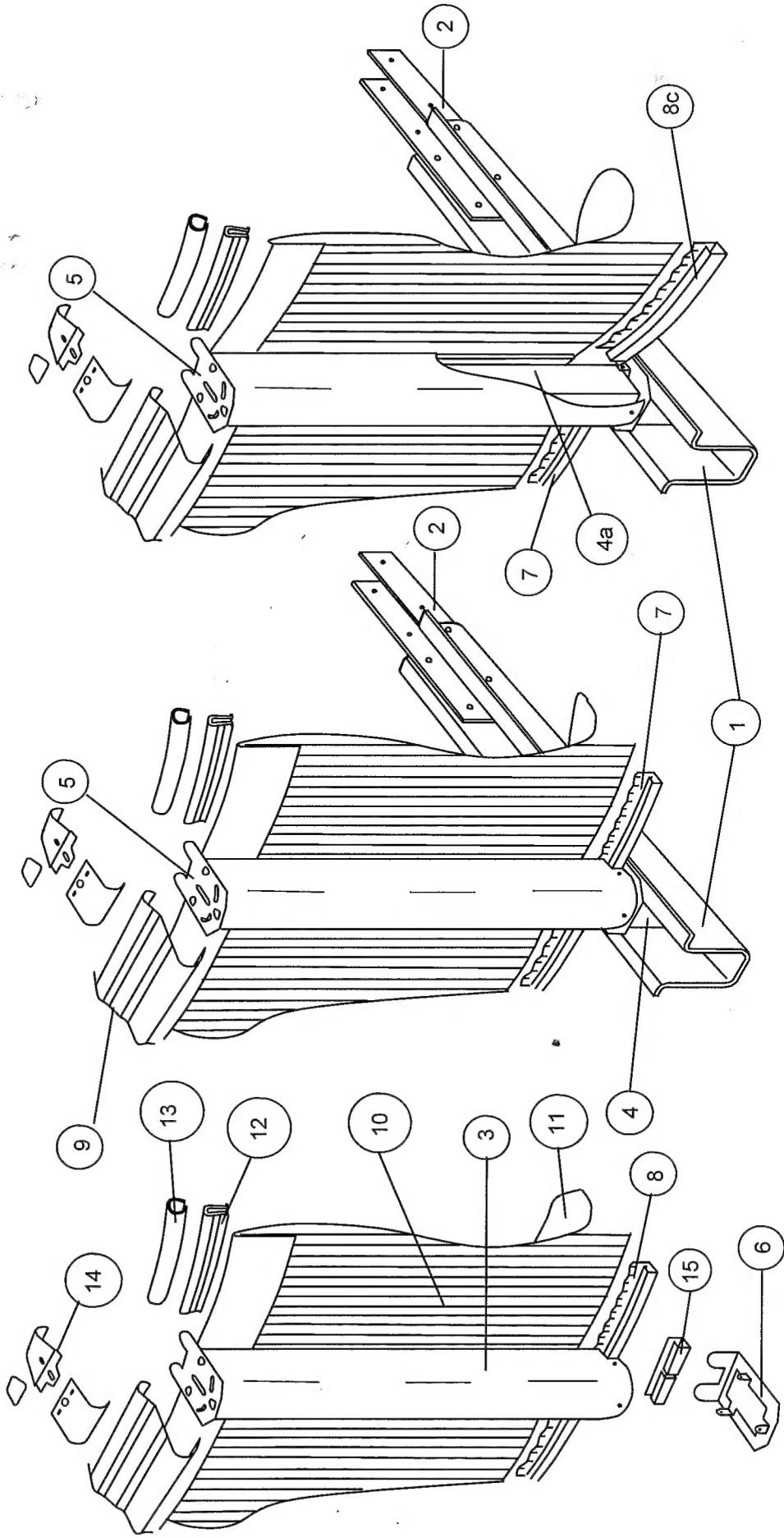
Additional materials may be required to install filter equipment and plumbing.

# ASSEMBLY GUIDE FOR OVAL, ROUND AND KEYHOLE POOLS

## CURVED END SECTION

## STRAIGHT SIDE SECTION

## KEYHOLE CORNER POST



## NUMBER OF PARTS YOU SHOULD HAVE FOR OVAL POOLS.

### OVAL POOLS

Item	Description	12x8	16x8	20x8	23x8	14x10	18x10	22x10	25x10	29x10	33x10	37x10	16x12	20x12	24x12	28x12	32x12	33x15	27x15	30x15	34x15	38x15
		1 set	2 sets	3 sets	4 sets	1 set	2 sets	3 sets	4 sets	5 sets	6 sets	7 sets	1 set	2 sets	3 sets	4 sets	5 sets	2 sets	3 sets	4 sets	5 sets	6 sets
1	Channel End (2 pcs per set)	1	2	3	4	1	2	3	4	5	6	7	2	4	6	8	10	6	9	12	15	18
2	Channel Joiner	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	2	3	4	5	4	6	8	10	12
2a	Channel Spacer	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
3	Non-Structural Post	10	12	14	16	12	14	16	18	20	22	24	12	14	16	18	20	16	18	20	22	24
4	Structural Post	2	4	6	8	2	4	6	8	10	12	14	2	4	6	8	10	4	6	8	10	12
5	Top Post Plate	10	12	14	16	12	14	16	18	20	22	24	12	14	16	18	20	16	18	20	22	24
6	Bottom Post Plate	10	12	14	16	12	14	16	18	20	22	24	12	14	16	18	20	6	18	20	22	24
7	Slightly Curved Bottom Rail	0	2	4	6	0	2	4	6	8	10	12	0	2	4	6	8	2	4	6	8	10
8a	10' Bottom Rail	10	10	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
8b	12' Bottom Rail																					
8c	15' Bottom Rail																					
9	Top Coping 1.2m	0	2	4	6	0	2	4	6	8	10	12	12	14	16	18	20	16	18	20	22	24
9a	Top Coping 1.0m	10	10	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
10	Metal Pool Wall	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Pool Liner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	PVC Edge Strips	10	12	14	16	12	14	16	18	20	22	24	12	14	16	18	20	16	18	20	22	24
13	PVC Top Rails	10	12	14	16	12	14	16	18	20	22	24	12	14	16	18	20	16	18	20	22	24
14	Coping Connector	10	12	14	16	10	12	14	16	18	20	22	12	14	16	18	20	16	18	20	22	24
15	Btm Rail Connector	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	12	12	12	12	12
	Deep End Channels																	1 set				

Note! Certain size pools are available with a deep end. The deep end section requires a set of eight specially shaped channels which replace two sets of the normal channels. Deep End Pools use 2 less Channel Joiners than the quantities shown for the flat bottom Pools

## NUMBER OF FASTENERS YOU SHOULD HAVE FOR OVAL POOLS

Item	Description	12x8	16x8	20x8	23x8	14x10	18x10	22x10	25x10	29x10	33x10	37x10	16x12	20x12	24x12	28x12	32x12	23x15	27x15	30x15	34x15	38x15
A	M10 x 25 bolt & nut	16	32	48	64	16	32	48	64	80	96	112	24	48	72	96	120	64	96	128	160	192
	M10 Washer	32	64	96	128	32	64	96	128	160	192	224	48	96	144	192	240	128	192	256	320	384
B	M12 x 25mm bolt & Wshr	4	8	12	16	4	8	12	16	20	24	30	4	8	12	16	20	8	12	16	20	24
C	14G x 1/2" self tapping screw (metal pool)	60	72	84	96	72	84	96	108	120	132	144	72	84	96	108	120	96	108	120	132	144
	(resin Pool)	60	120	140	160	120	140	160	180	200	220	240	120	140	160	180	200	160	180	200	220	240
D	14G x 1" self tapping screw (resin pool)	10	12	14	16	12	14	16	18	20	22	24	12	14	16	18	20	16	18	20	22	24
E	1/4"x 3/8" bolt, nut & wshr.	20	24	28	32	24	28	32	36	40	44	48	24	28	32	36	48	32	36	40	44	48
F	M10 x 75 bolt, nut & wshr.	66 for all pools 4' deep, 72 for all pools 4'6" deep 8 for all deep end pools where applicable.																				
G	14G x 5/8" Csk. Self tapper. (metal pools only)	40	48	56	64	48	56	64	72	80	88	96	48	56	64	72	80	64	72	80	88	96

**NOTE!** Resin pools are supplied with a small tub of a specially formulated marine grease. This must be applied to the thread of all screws upon assembly to minimise the risk of corrosion of mating metal components.

## ADDITIONAL MATERIALS REQUIRED FOR ASSEMBLY (not supplied) Note! All quantities are approximate

Item	12x8	16x8	20x8	23x8	14x10	18x10	22x10	25x10	29x10	33x10	37x10	16x12	20x12	24x12	28x12	32x12	23x15	27x15	30x15	34x15	38x15
Builders fatty sand	0.75m <sup>3</sup>	1.0m <sup>3</sup>	1.25m <sup>3</sup>	1.5m <sup>3</sup>	1.0m <sup>3</sup>	1.25m <sup>3</sup>	1.5m <sup>3</sup>	1.75m <sup>3</sup>	2.0m <sup>3</sup>	2.25m <sup>3</sup>	2.5m <sup>3</sup>	1.25m <sup>3</sup>	1.5m <sup>3</sup>	2.0m <sup>3</sup>	2.25m <sup>3</sup>	2.5m <sup>3</sup>	2.25m <sup>3</sup>	2.75m <sup>3</sup>	3.0m <sup>3</sup>	3.5m <sup>3</sup>	4.0m <sup>3</sup>
Black polythene sheet	4x2.5	5x2.5	6x2.5	7.3x2.5	5x3	5.5x3	6.7x3	7.7x3	8.9x3	10.1x3	11.3x3	5.0x4	6.1x4	7.4x4	8.6x4	10.0x4	7.0	8.3	9.2	10.4	11.6
400 x 200 x 100	2	4	6	8	2	4	6	8	10	12	14	2	4	6	8	10	4	6	8	10	12
Concrete blocks	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Brick	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m
PVC tape																					

## NUMBER OF PARTS YOU SHOULD HAVE FOR ROUND POOLS

Item	Description	10' Dia	12' Dia	15' Dia	18' Dia	21' Dia	25' Dia
1	Channel End )						
2	Channel Joiner )	Not used for Round Pools					
2a	Channel Spacer )						
3	Non-Structural Post	10	10	12	14	17	20
4	Structural Post	Not used for Round Pools					
5	Top Post Plate	10	10	12	14	17	20
6	Bottom Post Plate	10	10	12	14	17	20
7	Slightly Curved Bottom Rail						20
8a	10' Bottom Rail	10	10	12	14	17	
8b	12' Bottom Rail						
8c	15' Bottom Rail						
8d	18' Bottom Rail						
8e	21' Bottom Rail						
9	Top Coping 1.2m. Top Coping 1.0m.	10	10	12	14	17	
10	Metal Pool Wall	1	1	1	1	1	1
11	Vinyl Liner	1	1	1	1	1	1
12	PVC Edge Strip	10	10	12	14	17	20
13	PVC Top Rail	10	10	12	14	17	20
14	Coping Connector Set	10	10	12	14	17	20

**Note! Resin Pools are supplied with a small tub of a specially formulated marine grease. This must be applied to the thread of all screws upon assembly to minimise the risk of corrosion between mating components.**

### NUMBER OF FASTENERS REQUIRED FOR ROUND POOLS.

#### Pool Size

Ref	Description	10' Dia.	12' Dia.	15' Dia.	18' Dia.	21' Dia.	25' Dia.
C	14 Gauge x $\frac{1}{2}$ " (Steel Pool) Self Tapper (Resin Pool)	60 100	60 100	72 120	84 140	102 170	120 200
E	$\frac{1}{4}$ " x $\frac{3}{8}$ " Bolt, Nut & Washer	66 for 1.2 m deep pools, 72 for 1.37m deep pools					
D	14 G x 1" Self Tapper	10	10	12	14	17	20
G	14 G x $\frac{5}{8}$ " Countersunk Self Tapper (steel pools only)	40	40	48	56	68	80

### ADDITIONAL MATERIALS REQUIRED FOR ASSEMBLY. ( not supplied)

**Note! All quantities are approximate.**

Pool Size:-	10' Dia.	12' Dia.	15' Dia.	18' Dia.	21' Dia.	25' Dia.
Builders fatty sand.	0.6m <sup>3</sup>	0.75m <sup>3</sup>	1.0m <sup>3</sup>	1.5m <sup>3</sup>	2.5m <sup>3</sup>	3.0m <sup>3</sup>
Black polythene sheet. (mtr)	3.2x3.2	3.8x3.8	4.6x4.6	5.4x5.4	6.6x6.6	7.8x7.8
PVC Tape	1.5m	1.5m	1.5m	1.5m	1.5m	1.5m
Weed Killer	As required					

# POOL DIMENSIONS AND LAYOUT PLANS

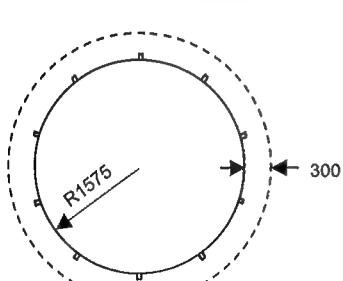
Layout plans and dimensions of Bahama Pools are illustrated below. Please note that the dimensions are approximate only. The perimeter dimensions are to the pool wall, the distances between the channels and from the channel to the centre point of the radius on Oval and Keyhole Pools are measured from the centreline of each channel.

A guide for site preparation and how to mark out your ground plan can be found under "SITE PREPARATION" in the front of this booklet.

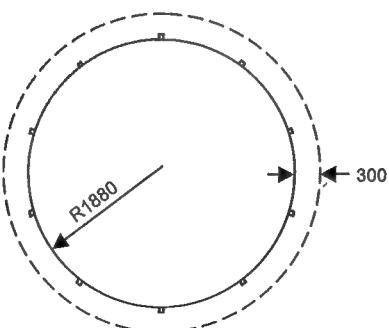
All dimensions are in millimetres.

## ROUND POOLS

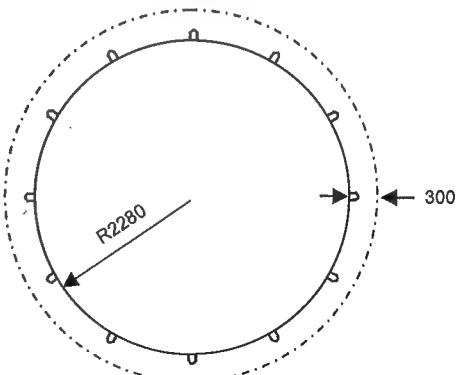
**10' ROUND**



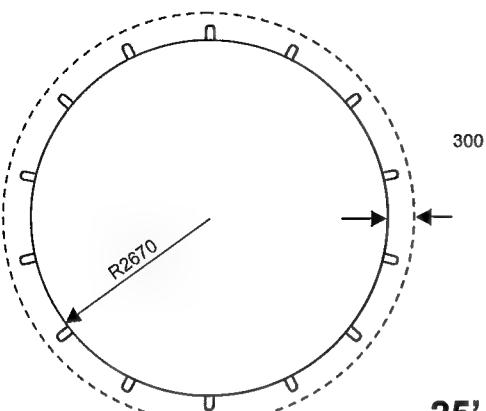
**12' ROUND**



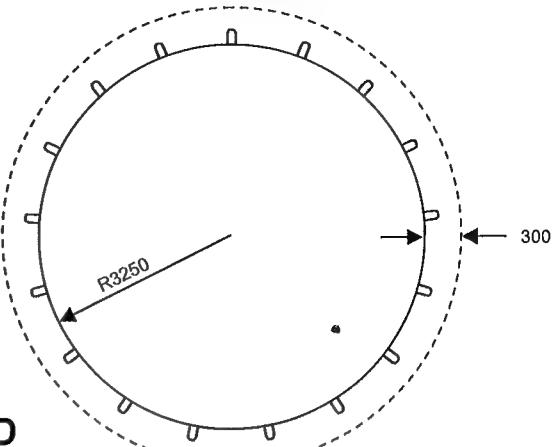
**15' ROUND**



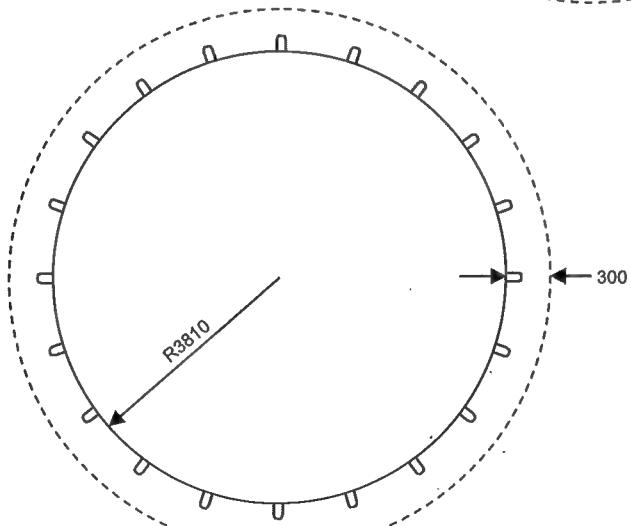
**18' ROUND**



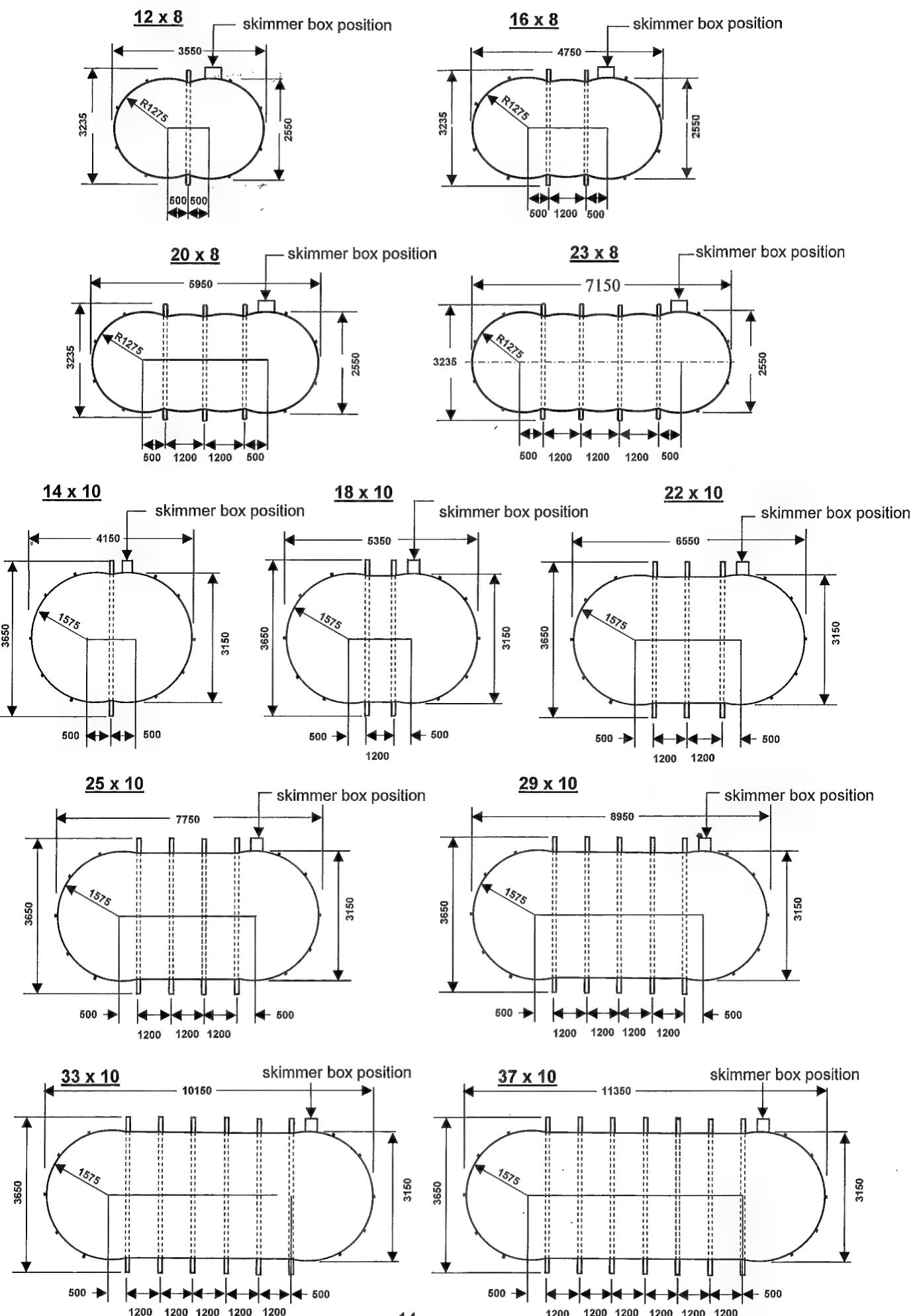
**21' ROUND**

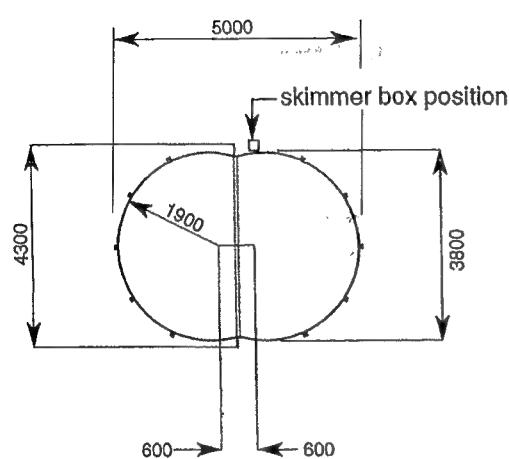
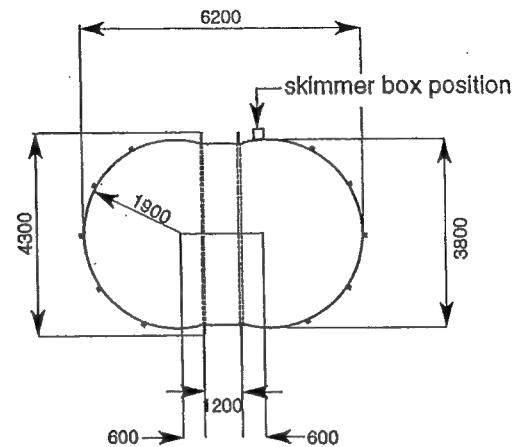
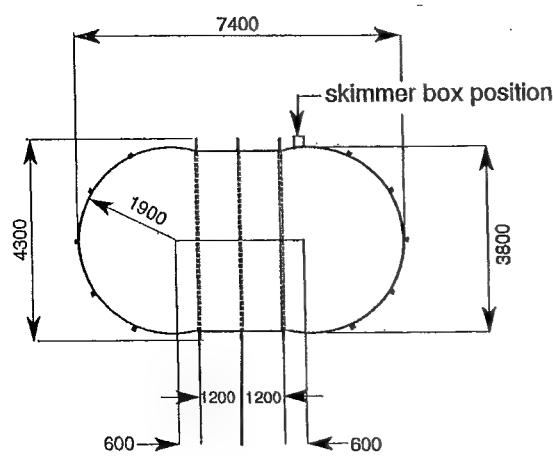
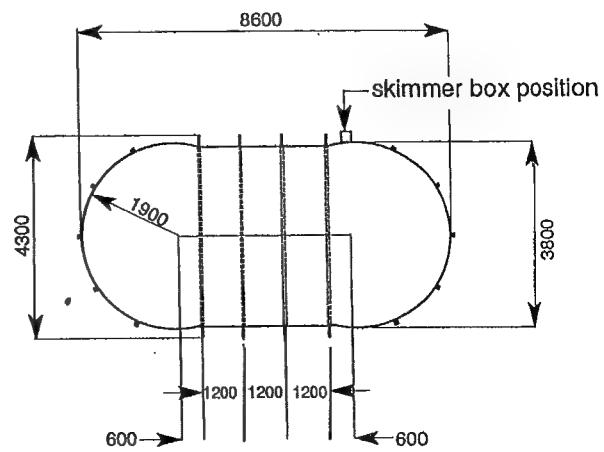
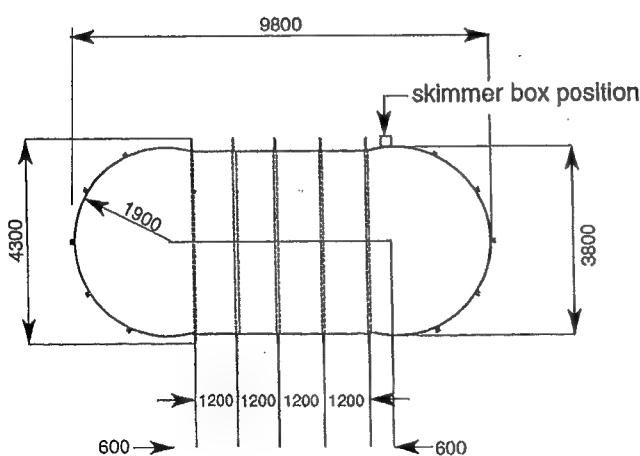
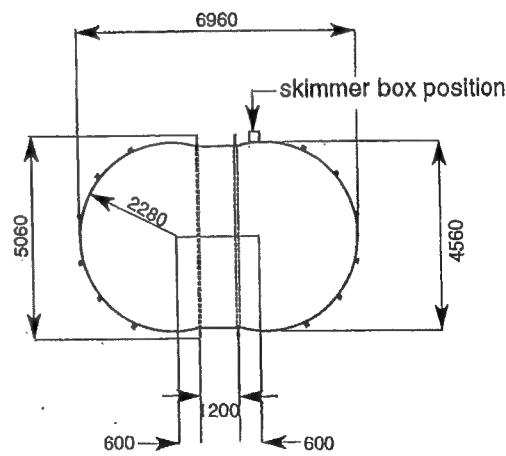


**25' ROUND**

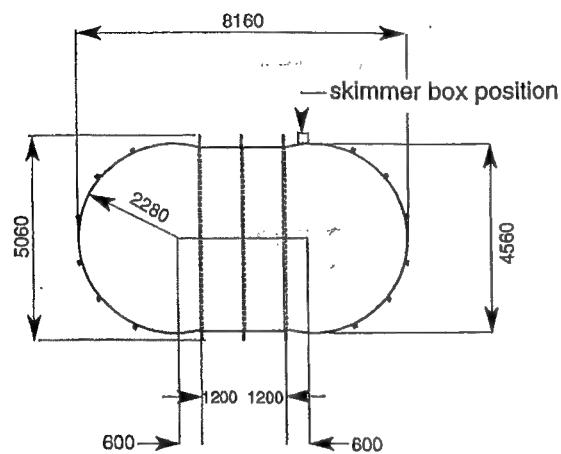


## OVAL POOLS

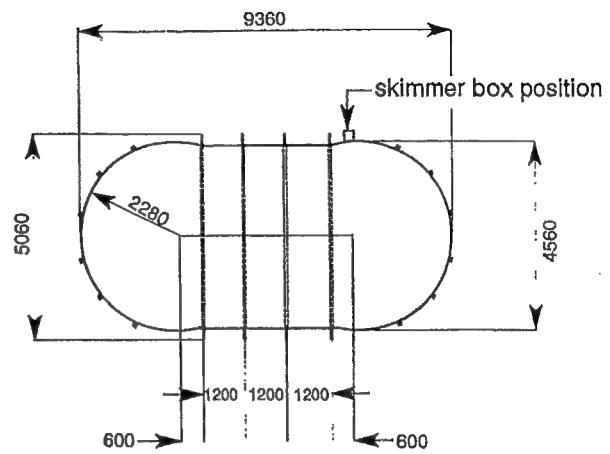


**BAHAMA 16 x 12****BAHAMA 20 x 12****BAHAMA 24 x 12****BAHAMA 28 x 12****BAHAMA 32 x 12****BAHAMA 23 x 15**

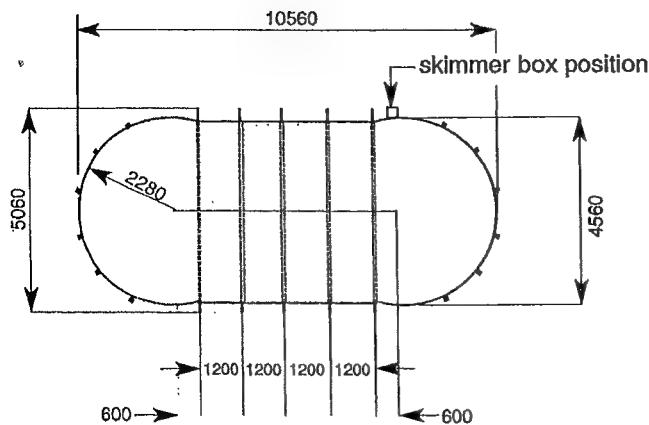
**BAHAMA 27 x 15**



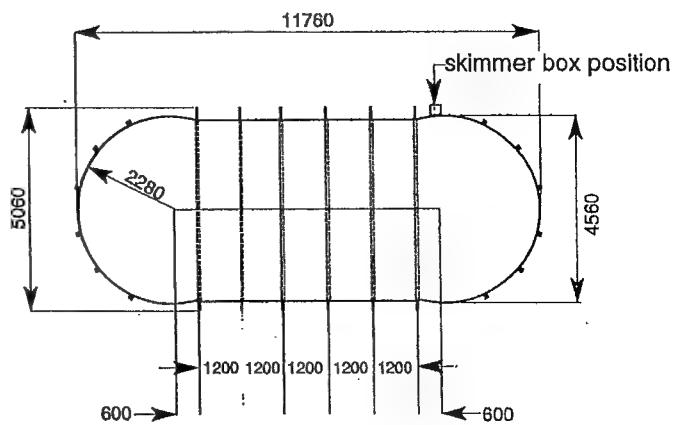
**BAHAMA 30 x 15**



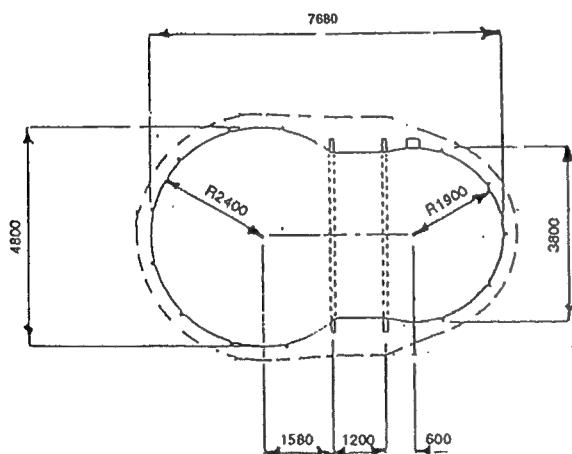
**BAHAMA 34 x 15**



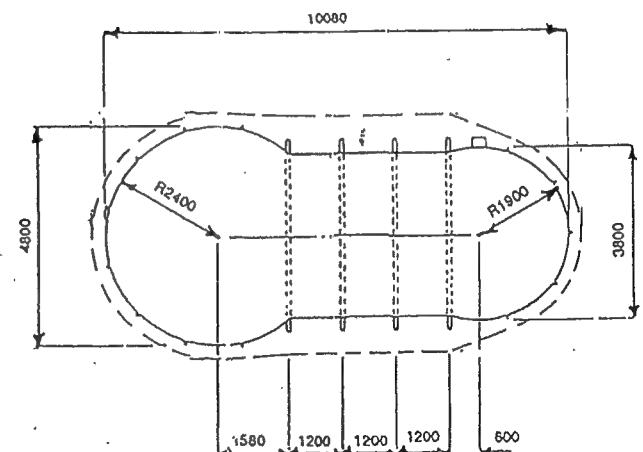
**BAHAMA 38 x 15**



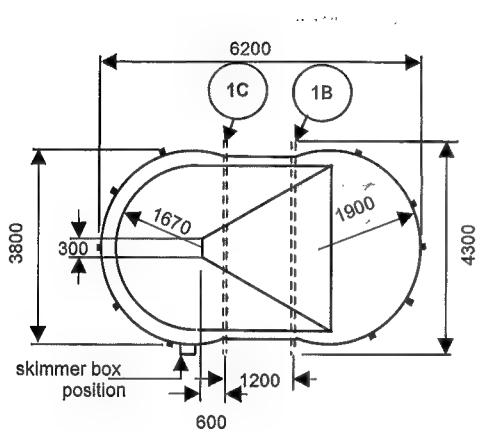
**KEYHOLE 25x 16**



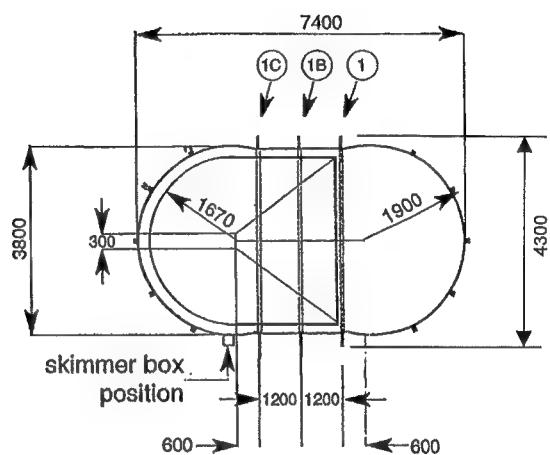
**KEYHOLE 33 x 16**



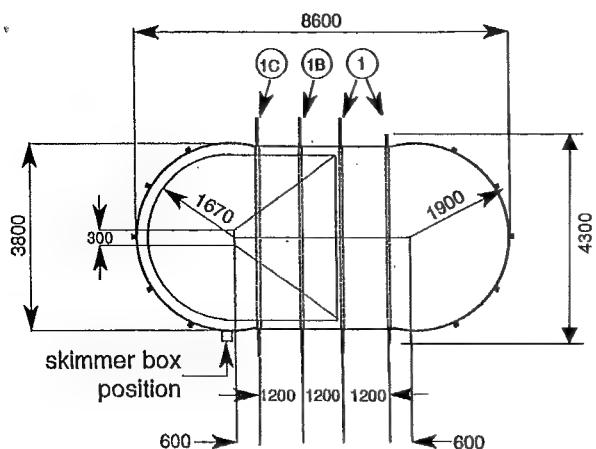
**20 x 12 DEEP END**



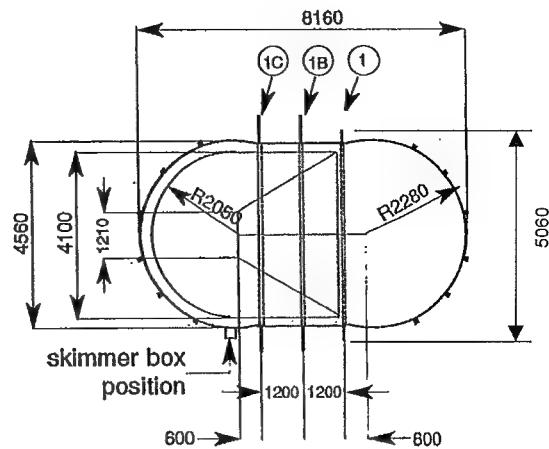
**24 x 12 DEEP END**



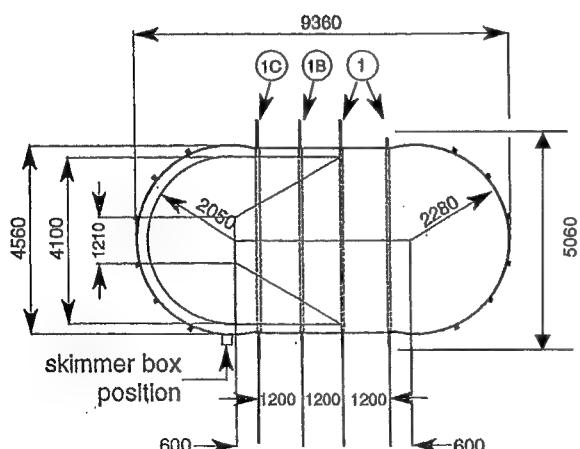
**28 x 12 DEEP END**



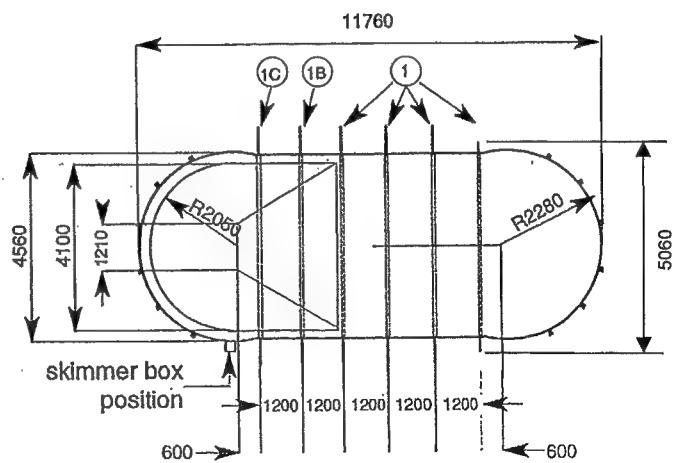
**27 x 15 DEEP END**



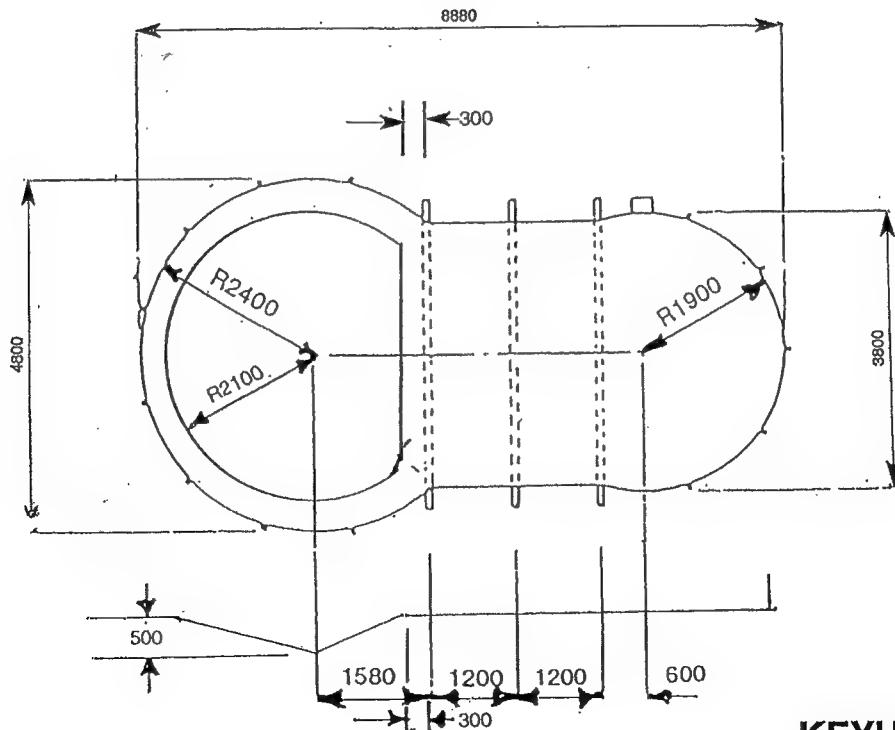
**30 x 15 DEEP END**



**38 x 15 DEEP END**



## ADDITIONAL INFORMATION FOR KEYHOLE POOLS



**KEYHOLE 29 x 16**

### DEEP END EXCAVATION: Same for all standard deep end Keyhole Pools.

Once the overall floor area of the pool is cleared and level, draw a semi-circle using 2100mm radius and stopping 300mm short of the channel.

Dig to 500mm deep at the centre, then excavate from the circumference of the semi-circle sloping down to the 500mm depth.

### PREPARATION FOR LINER FITMENT:

Once the sand bed has been laid and compacted and before fitting the liner, build a small mound of sand across the pool above the channel closest the deep end. This mound should be about 40mm high and about 50mm wide. It should not be compacted at this stage, it is to be used as a weir when filling the pool.

Fit liner as described in the manual then start filling the pool from the shallow end. The small amount of sand will retain water in the shallow end to enable removal of wrinkles. Once the water in the shallow end reaches the top of the mound it will flow over into the deep end but the water retained in the shallow end will hold the liner in place preventing it being dragged into the deep end. Once the overall water level is above the top of the mound, it can be compacted simply by walking across it or pressing it down by feet.

Please note when fitting liner, installer must only wear a large flat soft sole sandal (thongs), never walk on liner with bare feet.

The Posts on resin pools are a closed box section in shape, except for two special posts on Keyhole Pools that have one face open. These are fitted to the "Flanged Structural Posts" described in step 3A of the assembly instructions.

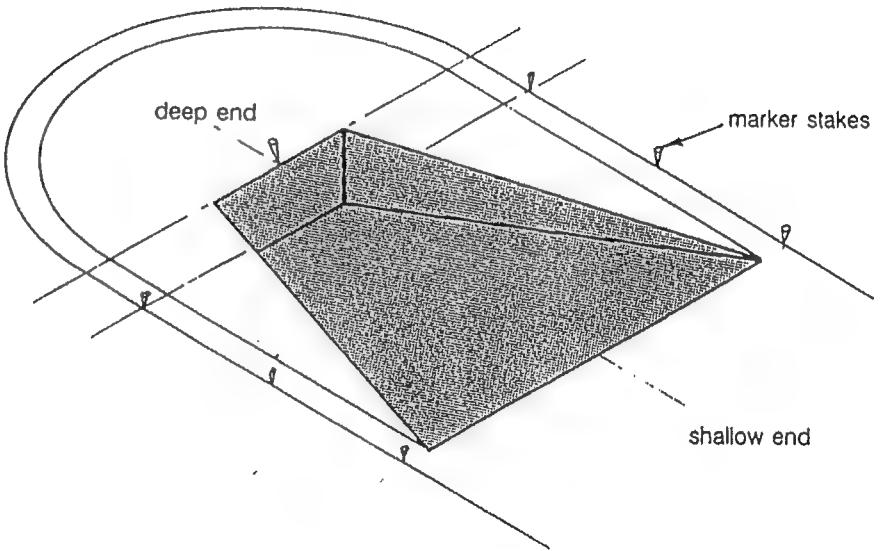
## SPECIAL SITE EXCAVATION FOR CORAL REEF DEEP END POOLS

To accurately produce the correct form of deep end for CORAL REEF POOLS the soil should be removed in sections as indicated below.

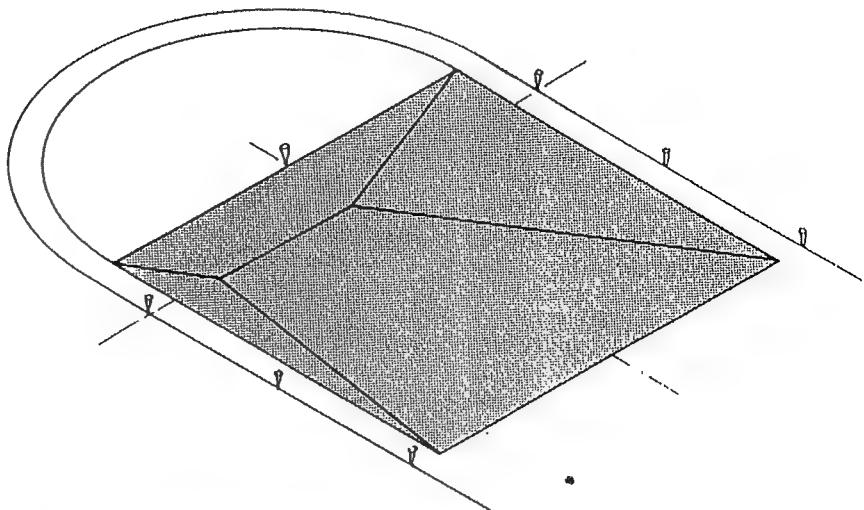
NOTE! These instructions apply to OVAL DEEP END POOLS ONLY.

1. Excavate the soil from the main ramp leading to the deep end. The maximum depth is 600mm which occurs on the line indicating the centre of the radius at the deep end of the pool.

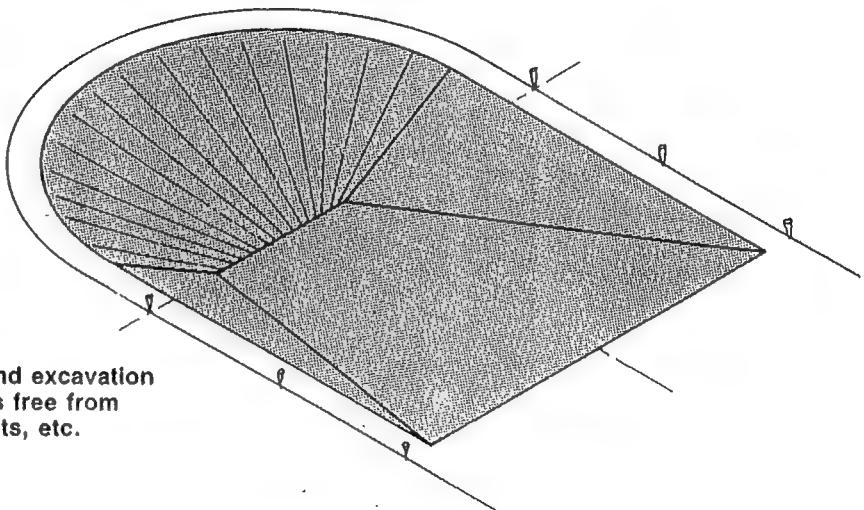
The ledge around the deep end excavation is 230mm wide.



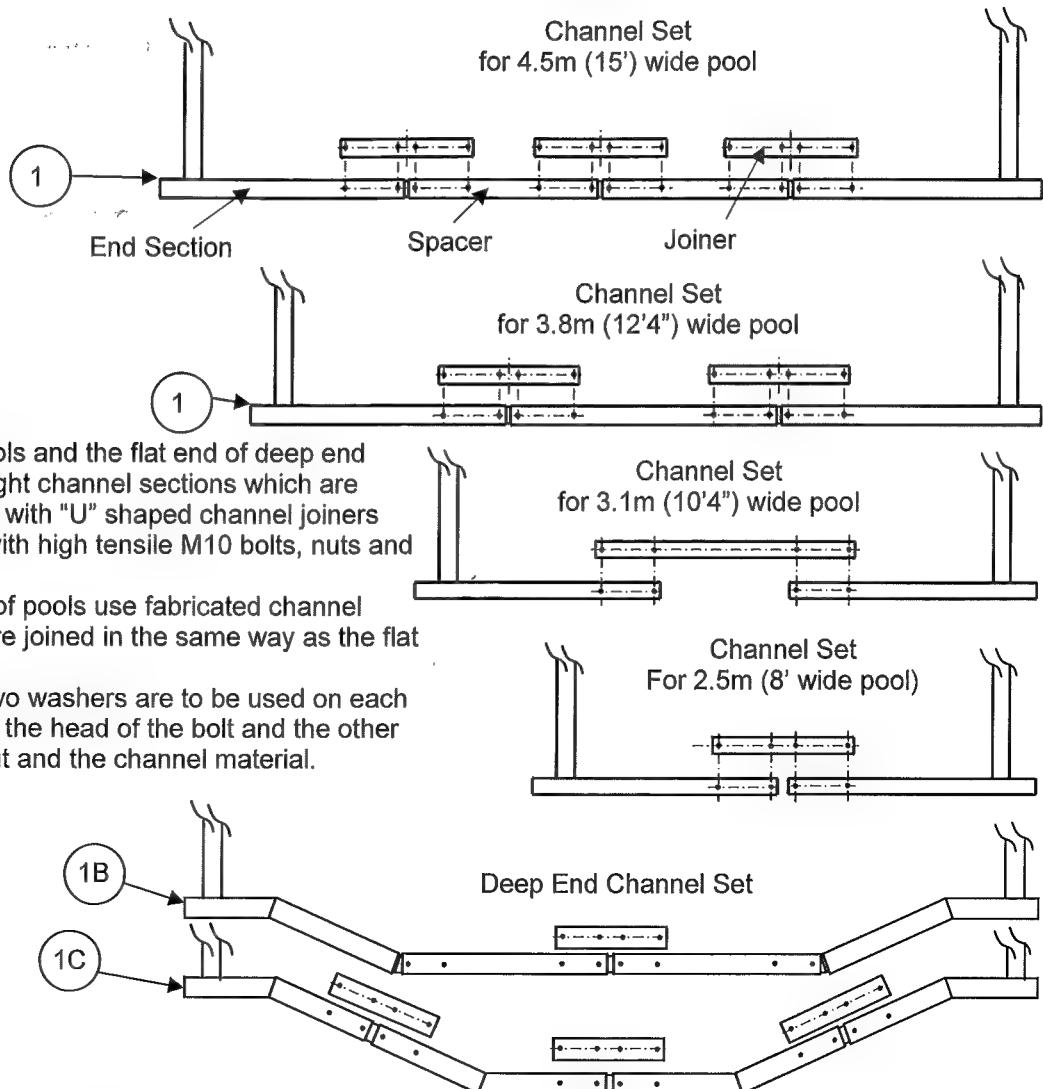
2. The side ramps can then be tapered down to meet the centre ramp.



3. Excavate the radiused end of the pool and blend the radiused top edge to the straight bottom.



# CHANNEL SECTIONS



## ASSEMBLY OF CHANNELS.

Each Channel Assembly consist of 2 end sections, (each having 4 holes pierced through the sides on one end and 6 holes pierced through the flanges at the other)

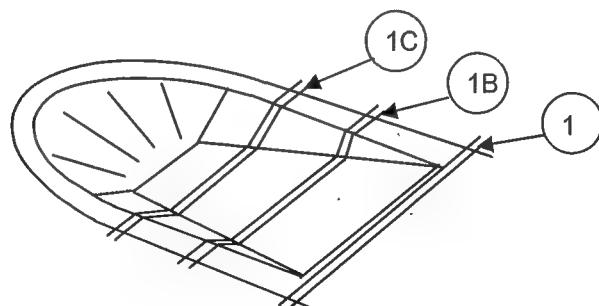
Spacers, (1 for 3.8m wide and 2 for 4.5m wide Pools), each have 4 holes pierced through the sides at both ends

Joiners which are either 'U' box shape or Box section with 8 holes pierced through the sides.

3.1m and 2.5m wide Pools use 2 end sections and 1 Joiner. No Spacers are required.

Sections are bolted together as shown in the diagrams above using 10mm Dia. Hexagon headed bolts and nuts, be sure to use a flat washer under the head of each bolt as well as under each nut.

### Channel Locations (deep end pools)



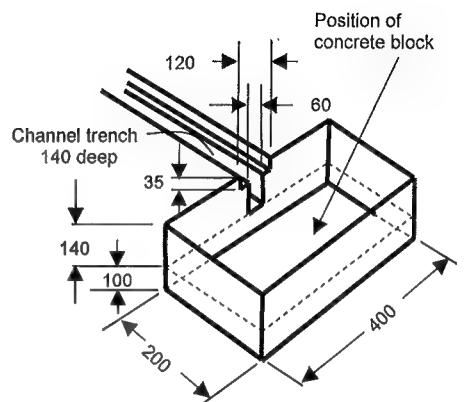
## **ASSEMBLY STEPS**

## Step 1

## **Excavate Trenches**

- String and stakes  
tape measure  
spade**

For each channel position mark 60mm either side of the marker stakes and scribe lines from these points to the corresponding points opposite. Dig a trench between these lines to a depth of approximately 140mm deep. At either end of the trench, dig a hole to enable a concrete block approximately 400 x 200 x 100mm to sit under each



## FITTING OF STRUCTURAL POST TO UNDER POOL CHANNEL

The galvanized structural post, that is used in conjunction with under pool channels, has been especially manufactured so that it has a "lean" of one degree toward the inside of the pool. This "lean" of one degree has been carefully calculated and practically proven to allow for the weight of the water and the deflection in the posts caused by this weight of water, to result in the post standing vertical when the pool is filled.

For correct alignment of structural posts, the arrow indicates the side of the post that faces the inside of the pool. Small plates welded on the side of the rectangular post protrude to the side away from the pool wall.

## Step 2

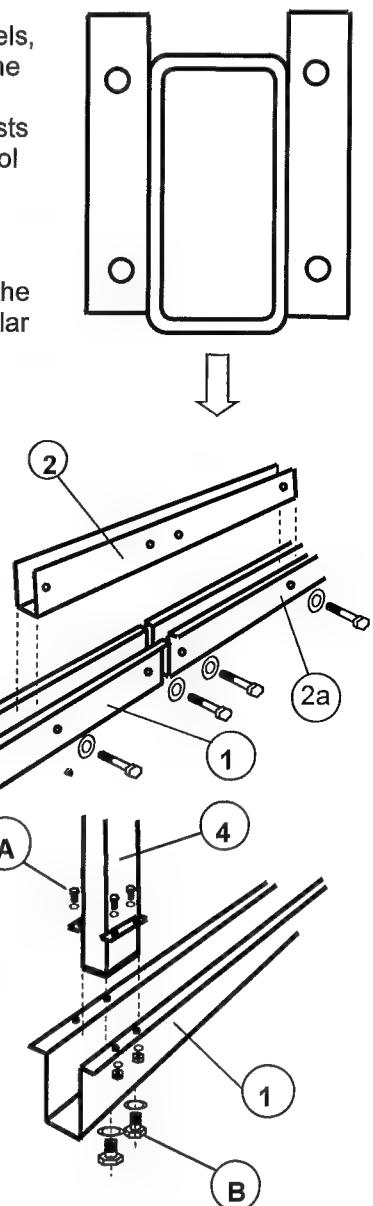
## Assemble channels

- 1** Channel End.
  - 2** Channel Joiner.
  - 2a** Channel Spacer.
  - A** bolts, nuts,  
washers,  
spanner.

Each Channel Assembly consist of  
**End Sections**, (Qty 2) each have 4 holes  
pierced through the sides on one end and 6  
holes pierced through the flanges at the other.

**Spacers**, (1 for 3.8m wide and 2 for 4.5m wide Pools) these are the same shape as the End Sections and have 4 holes pierced through the sides at either end.

**Joiners**, these are either 'U' or box shape with 8 holes pierced through the sides and join to the End Sections and Spacers.  
3.1m and 2.5m wide Pools use 2 End Sections and 1 Joiner. No Spacers are required.



### **Step 3**

## **Assemble structural posts to channels and position**

- 1** Channel Ends.
  - 4** Structural Posts.
  - A** 10mm bolts, nuts & washers.
  - B** 12mm bolts & washers

Place structural post into Channel End as illustrated. Fix together with four 10mm bolts, nuts & washers through the flanges using a washer under the head of the bolt as well as under the nut. The bolts must be inserted from the top.

Insert two 12mm bolts with washers through the underside of the Channel End and fasten them into the nuts welded to the inside of the Structural Post.

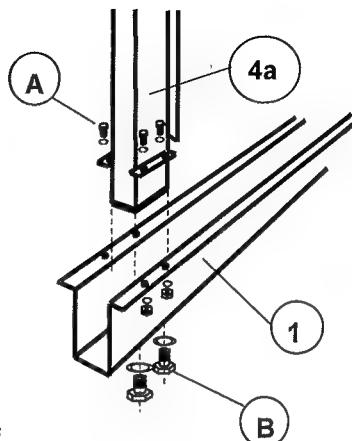
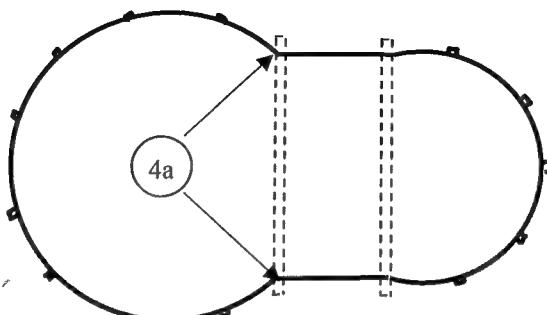
**ENSURE ALL BOLTS ARE FULLY TIGHTENED**

Position the post and channel assemblies in the trenches ensuring that they are absolutely square to the pool centre line, parallel and level with each other. The channels must be positioned in the ground so that the tops of the 10mm bolts are at ground level.

## Step 3A Keyhole Pools Only

### Position flanged structural posts

- 1 channels.
- 4a flanged structural posts.
- A 10mm bolts, nuts & Washers.
- B 12mm bolts & Washers.



Two of the Structural posts on Keyhole Pools have flange plates welded to the inside face. These Posts are to be located in the positions shown above with the flange facing the inside of the pool.

## Step 4

### Lay polythene sheet and dump sand.

- black polythene sheet.
- Scissors.
- builders fatty sand.
- wheelbarrow.
- spade.

For added protection of the pool liner it is recommended that the entire base area of the pool be covered with a layer of builders 0.1mm (0.004") black polythene sheet.

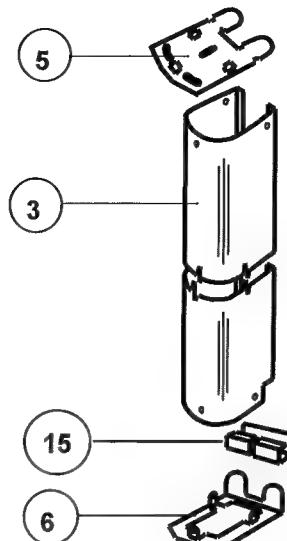
Dump the required quantity of builders fatty sand (larryless sand) on top of the polythene sheet within the pool area but do not spread it as yet.

The quantity of sand required for each size pool is listed under "other things you will need" near the front of this section.

## Step 5

### Assemble post plates to non-structural posts.

- 3 non-structural posts.
- 5 top post plates.
- 6 bottom post plates.
- 15 Bottom rail connector
- C self tapping screws.



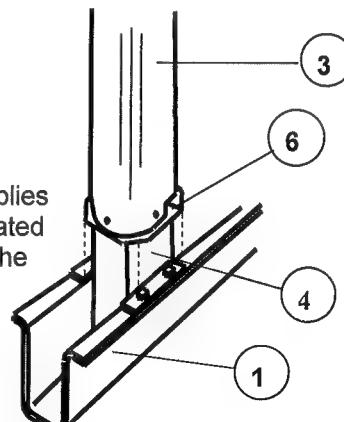
Attach top and bottom post plates to the posts with 14gauge x  $\frac{1}{2}$ " self tapping screws.  
Fit a bottom rail connector  
Inside the bottom of the end posts only, i.e. those posts that don't connect to a channel.  
Note! On Flanged Posts of Keyhole Pools the bottom post plate needs to be fitted to the structural post and then screwed to the non-structural post once it has been put in place.

## Step 6

### Assemble non-structural posts to structural posts.

- non-structural post assemblies.
- channel and structural post assemblies.

Slide non-structural post assemblies over the structural post as illustrated until they rest on the heads of the bolts in the channels.



## Step 7

### Position Bottom Rails

- 7 slightly curved bottom rails.
- 8 curved bottom rails.

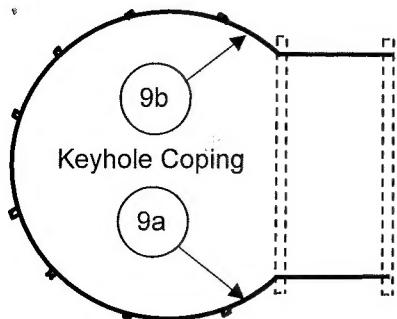
Position the slightly curved bottom rails between the channels then lay out the curved bottom rails around the radii marked on the ground. Note! Keyhole have curved rails of different radii, 9 pieces @ 2100mm radii and 6 pieces @ 1900mm. The 9 pieces are to be placed at the large end of the pool and the 6 at the small end. Adjust the pieces so that they are evenly spaced leaving approximately 20mm between each.

## Step 8

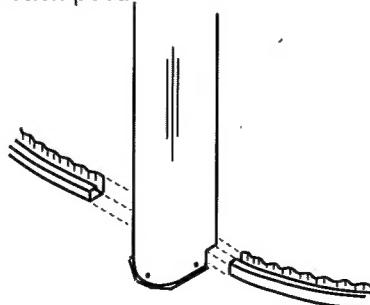
### Assemble posts to rails

**Post assemblies.**  
Bottom rails.

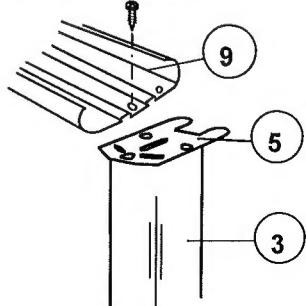
- 9 top coping.
- 9a keyhole coping.



Lay out the remaining post assemblies adjacent to the space between the rails. Fit the bottom rails into the bottom post plates and bottom rail connectors, adjust so they are equally engaged into each post.



To hold posts upright, place top coping UPSIDE DOWN between the posts and attach to the top post plate with a self tapping screw. (for resin pools use 1" long screws for this temporary operation, the 1/2" are not long enough. Replace with 1/2" for permanent fixing later)



For keyhole pools, locate the special keyhole coping between the structural and non-structural posts as shown

**DO NOT FULLY TIGHTEN SCREWS**  
The top coping is only temporarily attached to allow more accurate positioning of the posts and to hold them upright. The coping is re-fitted the right way up after the pool liner is in position.

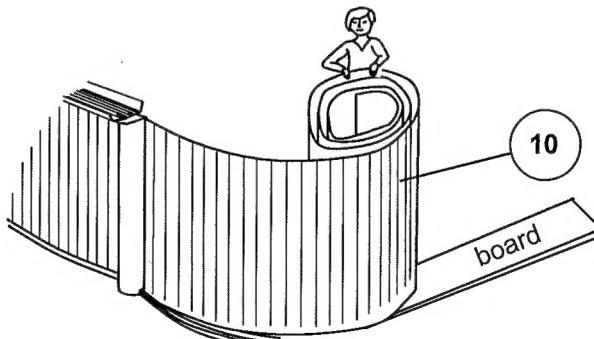
## Step 9

### Position the metal pool wall

- 10 metal pool wall boards

You will need 2 friends to help unroll, steady and position the pool wall. First lay 2 boards inside the perimeter of the pool where you will start unrolling the wall. Stand the rolled up metal wall on one of the boards making sure that the skimmer box holes are at the top of the wall and will be in the correct position when the wall is unrolled. See pool ground plan for recommended skimmer box position.

A neater appearance can be achieved by locating the join in the pool wall behind a post. To achieve this it will be necessary to remove the post temporarily to enable the wall fasteners to be secured. As the wall is unrolled on the boards, feed the bottom of the wall into the bottom rails. As you pass each post, bend the top post plate tabs down over the wall to prevent the wall from falling over.



## Step 10

### Adjust and fix metal pool wall.

metal pool wall.

bolts, nuts & washers.

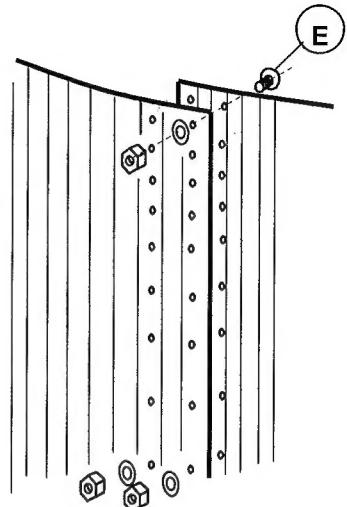
PVC tape.  
spanner.  
screwdriver.  
spirit level.

When the pool wall is unrolled it should overlap to allow assembly of the bolts into the holes in the ends of the pool wall. If the holes do not line up, the bottom rail will need to be adjusted.

Ease each of the posts inward to obtain more overlap or outward for less until the screw holes line up. Insert bolts through holes near the top, middle and bottom of the wall having the head of the bolt on the inside of the wall, fit a washer and nut to each and hand tighten.

At this stage it is important to check that all the posts are vertical and parallel to each other and that the bottom rails are inserted evenly at each post.

When you are satisfied that the framework of the pool is evenly spaced and level, fit the rest of the bolts, nuts and washers to the wall and tighten. Run a strip of PVC tape over the heads of the bolts and the end of the wall on the inside of the pool for protection of the pool liner.



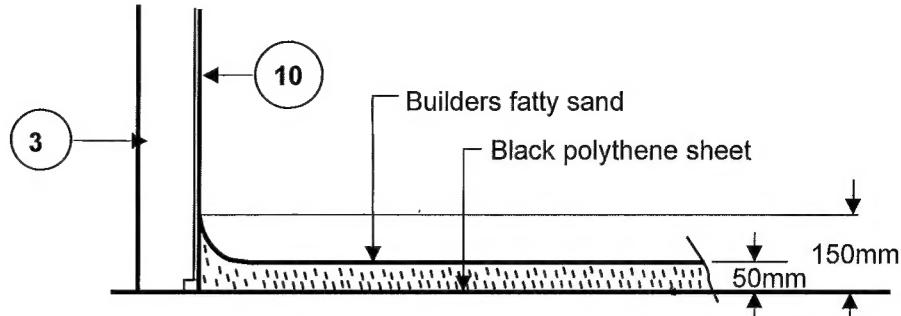
## Step 11

### Prepare pool base.

builders fatty sand.

rake.  
tamper/roller.  
cloth.

Spread sand evenly over pool base to a depth of 50mm. Build up a ramp of sand around the inside of the pool wall up to approximately 150mm. from the level of the pool base. The flat area of the pool can be raked and graded before tamping down and compacting the sand. Wipe down the wall of the pool with a clean dry cloth to prevent sand particles from damaging the liner.



## Step 12

### Position, adjust and fix liner

11 liner.

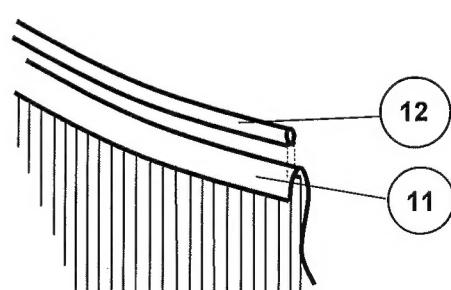
Leaving the liner in its container, lift it into the pool unpack it and spread it evenly across the pool trying not to disturb the level of the sand. Take care when handling the liner as any sharp objects could damage it. Do not walk on the liner with shoes.

Spread the liner making sure that it is centred and evenly positioned around the pool wall. Unbend the post plate tabs on top of the posts and fold the liner over the edge of the pool wall. Temporarily clamp it in position with a few of the PVC edge strips. Remove most of the folds and wrinkles from the floor of the pool and start to fill with water. When the depth has reached a maximum of 25mm, working from the centre of the pool straighten out any remaining wrinkles. Once the water depth has reached approximately 150mm, remove any slack from the liner wall.

12

PVC edge strips

When the liner is positioned evenly and smoothly, the PVC edge strips should be tapped securely in position, the last strip may need to be trimmed to sit neatly. The top post plate tabs should all be bent down over the pool wall and the liner.



## Step 13

### Fit Top Rails

- 13 PVC top rail

Place PVC top rails over the plastic edge strips and tap down firmly into position. These rails act as stabilizers for the top of the wall and are not fixed to the post assemblies.

## Step 14

### Re fit Top Copings

- 9 top coping.

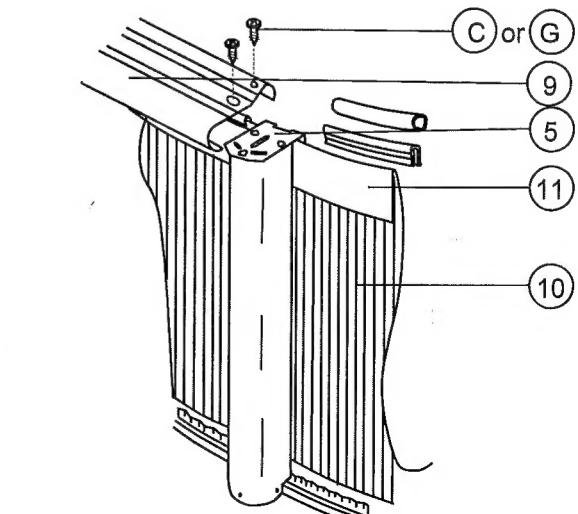
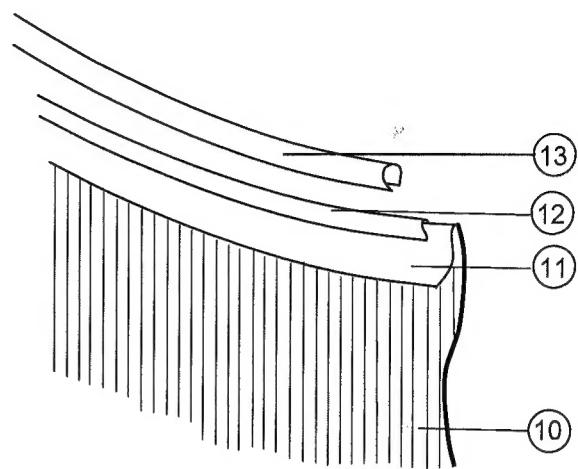
- 9a special coping keyhole pools

- G self tapping screws (metal pools)

- C Self tapping screws (resin pools)

Allow the Pool Water Level to reach half depth before proceeding with Step 14

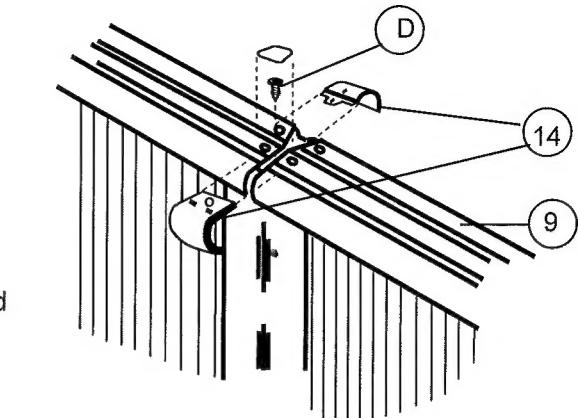
Unscrew the top coping and re fit the right way up having the longer vertical flange to the outside of the wall. Attach the top coping to the top post plates with self tapping screws, but do not tighten them completely. Make sure that all the posts are vertical and parallel with each other and the copings are straight. It is a good idea to stand back from the pool to determine which posts are not vertical and adjust them, checking them with a spirit level. When this process is complete the self tapping screws may be fully tightened.



## Step 15

### Fit PVC inserts

Metal pools are supplied with non-slip PVC inserts that snap into the grooves in the top of the coping. These should now be fitted, some soapy water applied to the Coping will enable these strips to be fitted more easily.



## Step 16

### Fit coping connector

- 14 coping connector.

- D self tapping screws

Assemble the two pieces of the coping connector over the joints at the top of the posts, hold them firmly together and fix in place with a self tapping screw. The plastic screw cover can now be snapped into place.

## Step 16

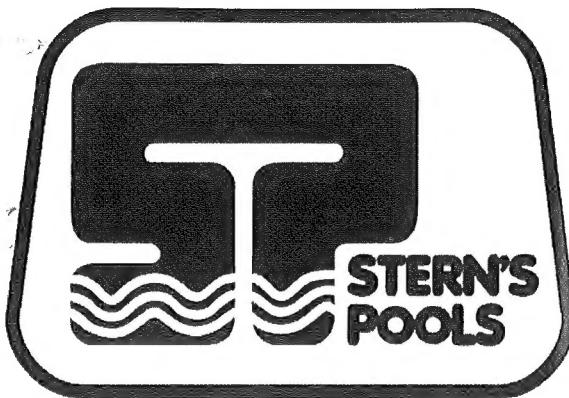
### Fit Skimmer Box and connect Filter.

Fill your pool to 50mm below the lowest cut out in the pool wall and proceed to install the skimmer box and filter equipment. Detailed installation instructions are supplied separately with these components.

Ensure that all electrical components are protected from the weather and are located in a well ventilated and well drained position. Rigid plumbing is recommended for connection of your filtration equipment as it is more efficient and longer lasting than flexible hose.

Once the skimmer box and filter equipment has been fitted the pool may be filled to half way up the skimmer box opening. Be sure to read the filter operating instructions carefully before operating the filter and to check for leaks in the plumbing.

Before swimming in your pool the water must be chemically treated; see  
"CARE AND MAINTAINENCE OF YOUR POOL"



## **NEW FAMILY POOL WARRANTY**

On all Stern's Family Pools (excluding South Seas range) the warranty has been modified to a **20-year warranty**. This is applicable to any pools purchased as of 1<sup>st</sup> November 2011. The warranty comprises of two parts a 3 year full warranty and a 17 year pro rata period during which time any faulty parts will be replaced at a cost (based on current retail at time of claim) to the purchaser.

The total warranty period for **Bahama, Barbados, Coral Reef, Hawaiian, Jamaican, Tropical and all Salt Water Pools** shall be 20 years from the original date of purchase.

The total warranty period of 20 years, is outlined below:

- 0 years to 3 years product is covered by the full warranty
- 3 years and 1 day to 5 years product is covered by a 30% pro rata warranty
- 5 years and 1 day to 10 years product is covered by a 60% pro rata warranty
- 10 years and 1 day to 20 years product is covered by an 80% pro rata warranty

The total warranty period for **South Seas Pools** shall be 15 years from the original date of purchase.

The total warranty period of 15 years, is outlined below:

- 0 years to 3 years product is covered by the full warranty
- 3 years and 1 day to 6 years product is covered by a 30% pro rata warranty
- 6 years and 1 day to 9 years product is covered by a 60% pro rata warranty
- 9 years and 1 day to 15 years product is covered by an 80% pro rata warranty

Please note that full warranty terms and the use of the product regarding warranty conditions outlined in the warranty card are still applicable. This warranty is for the pool framework only and not the liner, which has its own warranty.